

DESCRIPTION

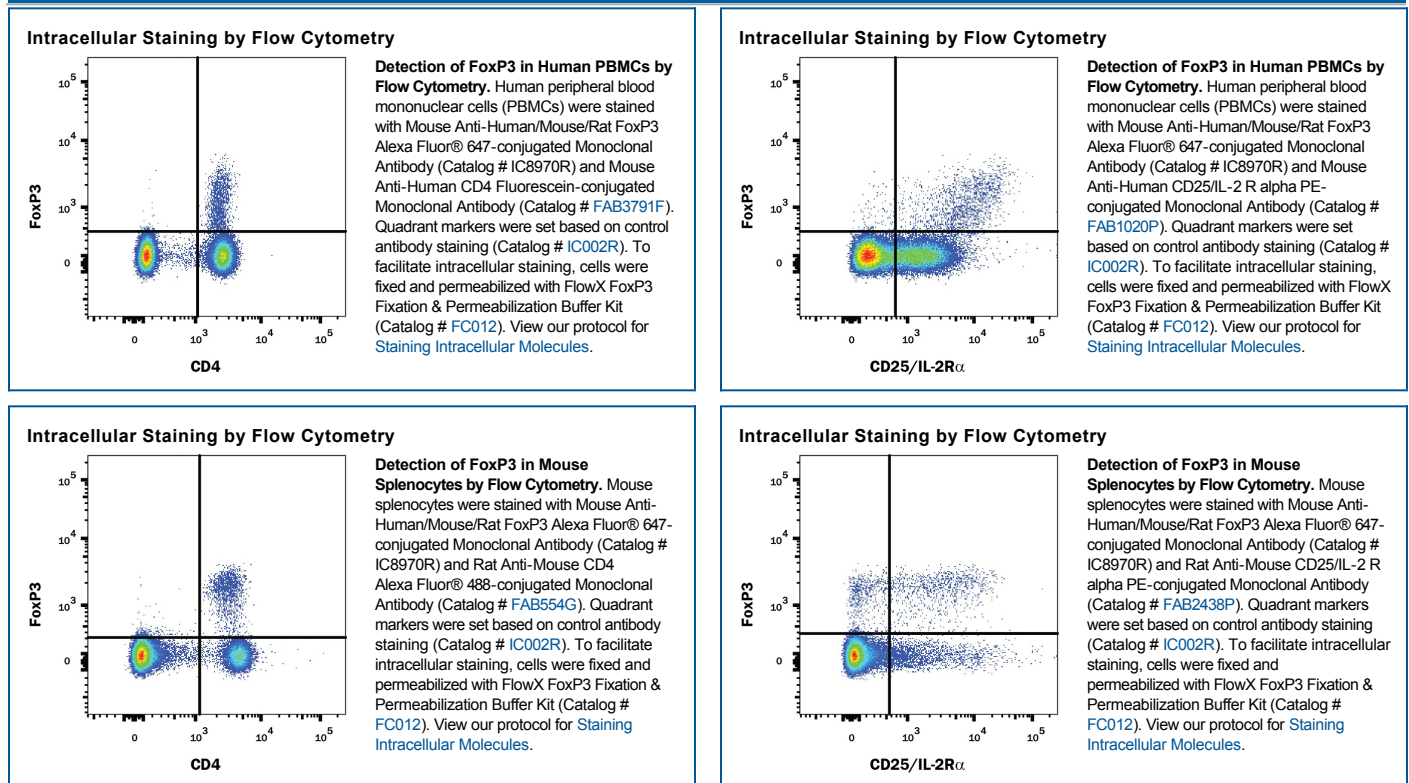
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human FoxP3 in direct ELISAs. Detects human, mouse, and rat FoxP3 in flow cytometry.
Source	Recombinant Monoclonal Mouse IgG ₁ Clone # 376209
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human FoxP3 Gln105-Lys200 Accession # Q9BZS1
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

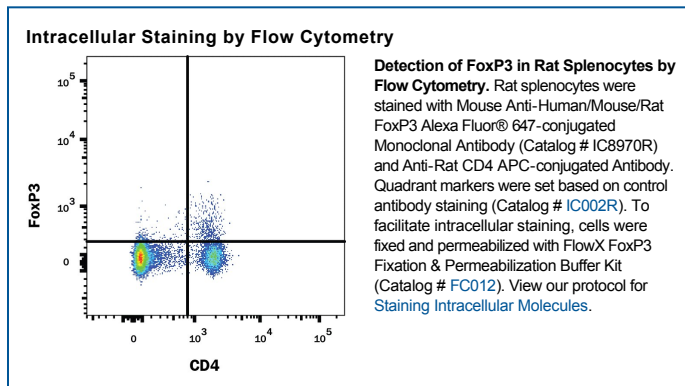
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	5 µL/10 ⁶ cells	See Below

DATA





PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Human FoxP3 is a 431 amino acid (aa), 47 kDa member of the P subclass of the FOX (forkhead box) family of transcription factors. It contains a Leu-rich repeat, a C2H2 zinc finger region, and a C-terminal FKH (fork head), DNA-binding domain. Three alternative splicing events have been described in human. The first shows a deletion of aa 72-106, a second exhibits a deletion of aa 246-272, and a third records a 60 aa insertion after Lys382. These events are likely not to be mutually exclusive. The first isoform (plus the full-length form) occurs in CD4⁺CD25⁺ T cells, while the less frequent second isoform appears in CD8⁺ Tregs. The mouse FoxP3 gene does not appear to be spliced. In addition, FoxP3 is found only in Tregs in mouse, while human FoxP3 appears in both Tregs and CD4⁺ and CD8⁺ conventional T cells.

Both mouse and human FoxP3 undergo proteolytic processing, after Arg51 and Arg417 in human, and at equivalent sites in mouse. Cleavage at the N-terminus generate a 41 kDa isoform, whereas C-terminal cleavage generates an isoform indistinguishable from the full-length isoform (47 kDa) in SDS-PAGE.

FoxP3 can act as a transcriptional repressor (for IL-2) via an interaction with HDAC7. By contrast, it can also act as a transcriptional activator (for GITRL and CTLA-4) through an interaction with RUNX7. Notably, for both human and mouse, full-length 47 kDa FoxP3 will induce high levels of CTLA-4 on expressing cells. However, when the C-terminally truncated isoform (at Arg417) is considered, IL-10 promoting activity is enhanced in mouse, while suppressive activity is lost in human. Over aa 105-200, human FoxP3 shares 83% and 84% aa sequence identity with rat and mouse FoxP3, respectively.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.